Journal of Applied Biomaterials
Subject Index—Volume 4

a.c. impedance, 47
Angiodysplasia, 253
Animal model, 331
Annealing, 55
Apatite, 221
Apatite-wollastonite-containing glass ceramic (A-W.GC), 317

Bibliography, 195
Bioabsorable implants, 109
Bioactive bone cement, 29, 135
Bioactive glass ceramics, 221
Bioactive glass-ceramics, 317
Bioactive glasses, 221
Bioactive glass powder, 29, 135
Biocompatibility, 1, 97, 195, 213, 331
Biodegradable, 1
Biomaterial, 61
Biomaterials, 195, 309
Biomaterials availability, 355
Biomechanics, 143
BIS-GMA resin, 135
Bone, 143
Bovine serum, 47
Breast prostheses, 281

Calcium-phosphorus-rich layer, 317
Cancellous bone, 269
C3 and C5 activation, 231
Cardiovascular monofilament sutures, 87
Caries, 97
Cell membrane integrity, 309
Cement-bone interface, 29
Ceramics, 331
Coating material, 317
Cobalt-chromium (alloys), 77
Colony assay, 153
Complement activation by biomaterials, 231
Composite, 1
Corneal cells, 249
Corrosion, 47
Curie temperature, 55
Cytocompatibility, 309
Cytotoxicity, 153

d.c. polarization, 47
Dental, 97
Diffusion, 67

Electrophysiology, 261
Emboli, 253
Endovascular occlusion, 253

Fibrinogen adhesives, 341
Fibroblast growth factor, 67
Fixation, 143
Flange, 183
Fluoride-release, 97
Foreign body, 303

Goats, 183

Handling, 61
Healthcare reform legislation, 359
Heterogeneous nucleation, 221
Hip replacement, 273
Histology, 261
Hydrocoagulation reaction, 253
Hydroxyapatite, 143
Hydroxyapatite interface, 213
Hyperthermia, 55

Implant, 213
Implantation test, 153
Information retrieval, 195
Ingrowth/hard tissue, 143
Interfacial shear strength, 29
Intramedullary bone, 13
Intraocular lenses, 249
Intrauterine device (IUD), 289
In vitro evaluation, 231
In vivo investigation, of high performance duplex stainless steel, 39
IUD, 289

Knot, 241

Literature searching, 195

Mechanical properties, 77
Mechanical testing, 269
Metals, 331
Microneurorrhaphy, 261

Needle penetration performance, 157
Neointima formation, 347
Neutral red assay, 153
Ni-Cu alloy, 55

Oil Red O, 119
Orthopaedic fracture fixation, 109

Particulate debris, 127, 273, 303
Percutaneous, 183
Phosphate fibers, 1
Plaster of Paris, 67
Polydimethlysiloxane, 73
Polyethylene (UHMWPE) wear particles, 119
Polyethylene wear, 303
Poly-L-lactic acid (PLLA), 13
Polymer, 61, 269
Polymer surfaces, 231
Polypropylene suture (Surgipro), 169
Polytetrafluoroethylene grafts, 87
Poly(2-hydroxyethel methacrylae), 253
Prolene, 169
Pulsed electromagnetic fields (PEMFs), 127
Push-out test, 29

Rabbit model, 127
Ringer's solution, 47

Silica gel, 221
Silicone polymers, 355
Silicones, 281
Spherulites, 13
Stainless steel, 161
Stainless steel, duplex, 39
Stiffness, 183
Surgical needles, 161
Surgical suture needle, 157
Suture, 61, 241
Synthetic bone, 269

Tensiometer, 241
Ti-6Al-4V alloy, 47
Titanium, 213
Titanium alloy (Ti6Al-4V), 317
Total joint arthroplasty, 331
Toxicity testing, 1
Tubulization, 261
Tying technique, 241

Vascular graft, 347

Journal of Applied Biomaterials
Author Index—Volume 4

Adamyan, A. A. See Horák, D., 253
Alexander, H. See Suganuma, J., 13
—; See Rosenblum, S. F., 67
The Editor's Corner: The Best Defense is a Good Offense: For the Adoption of Healthcare Impact Statements, 107
Alexander, N. See DoVan, T., 127
Andriano, K. P.
—; Daniels, A. U.; Smutz, W. P.; Wyatt, W. B.; Heller, J.: Preliminary Biocomapatibility Screening of Several Biodegradable Phosphate Fiber Reinforced Polymers, 1
Arciola, C. R.
—; Cenni, E.; Tarabusi, C.; Caramazza, R.; Pizzoferrato, A.: Corneal Endothelium Cell Adhesion on Intraocular Lenses *in vitro*, 249

Baier, R. See Gould, J. A., 355
Baquey, C. See Bordenave, L., 309
Bareille, R. See Bordenave, L., 309
Batra, E. K.
—; Franz, D. A.; Towler, M. A.; Rodeheaver, G. T.; Thacker, J. G.; Zimmer, C. A.; Edlich, R. F.: Influence of Surgeon's Tying Technique on Knot Security, 241
Bednarz, P. See DoVan, T., 127
Bendel, L. P.
—; Trozzo, L. P.: Tensile and Bend Relationships of Several Surgical Needle Materials, 161
Benjamin, J. B. See Szivek, J. A., 269
Benson, J. See Gould, J. A., 355
Benton, J. B.
—; Zimmerman, B. F.; Zimmerman, K. L.; Rawls, H. R.: *In vivo* Biocompatibility of an Acrylic, Fluoride-Releasing, Anion-Exchange Resin, 97
Bergman, R. A. See Tountas, C. P., 261
Black, J. See Tramaglini, D., 183
Bordenave, L.
—; Bareille, R.; Lefebvre, F.; Baquey, C.: A Comparison between ^{51}Chromium Release and LDH Release to Measure Cell Membrane Integrity: Interest for Cytocompatibility Studies with Biomaterials, 309
Boretos, J. See Gould, J. A., 355
Boyde, A.
Letter to the Editor, 114
Bush, R. B.
A Bibliography of Monographic Works on Biomaterials and Biocompatibility, 195

Callahan, T. See Gould, J. A., 355
Canty, E. See Gould, J. A., 355
Caramazza, R. See Arciola, C. R., 249
Carreno, M.-P. See Labarre, D., 231
Cenni, E. See Arciola, C. R., 249
Chao, E. Y. S. See Duda, G. N., 341
Chu, A. See Chu, C. C., 169
Chu, C. C.
—; Pratt, L.; Zhang, L.; Hsu, A.; Chu, A.: A Comparison of a New Polypropylene Suture with Prolene, 169
Chun, G. See Kossovsky, N., 281
Cigada, A.
—; De Santis, G.; Gatti, A. M.; Roos, A.; Zaffe, D.: *In vivo* Behavior of a High Performance Duplex Stainless Steel, 39
Clark, J. B. See Ferguson, S. D., 55
Clerc, C. O. See Jedwab, M. R., 77
Compton, R. See Gould, J. A., 355
Coughlin, R. W.
—; Vieth, R. F.: Polypropylene IUCD Retrieval Fibers: Surface Morphology, Material Properties, Microbial Attachment and Migration, 3:99–115, 1992, Errata, 363

Daigle, K. See Lewis, G., 47
Dan, V. N. See Horák, D., 253
Daniels, A. U. See Andriano, K. P., 1
Davidson, J. A. See Goodman, S. B., 331
De Santis, G. See Cigada, A., 39
DeYoung, D. W. See Maliniak, M. M., 143
Deehan, M. See DoVan, T., 127
DoVan, T.
—; Zimmerman, M. C.; Bednarz, P.; Alexander, N.; Deehan, M.: Effects of Pulsed Electromagnetic Fields on the Foreign Body Response to Particulate Debris in a Rabbit Model, 127
Duda, G. N.
—; Chao, E. Y. S.; Grabowski, J. J.; Taswell, H. F.: Testing Method for Mechanical Properties of Fibrin Glue, 341

Edlich, R. F. See Towler, M. A., 87
—; See Pavlovich, L. J., 157
—; See Batra, E. K., 241
Emmanual, J. See Maliniak, M. M., 143

Ferguson, S. D.
—; Paulus, J. A.; Tucker, R. D.; Loening, S. A.; Park, J. B.: Effect of Thermal Treatment on Heating Characteristics of Ni–Cu Alloy for Hyperthermia: Preliminary Studies, 55
Fornasier, V. L. See Goodman, S. B., 331
Franz, D. A. See Batra, E. K., 241
Frenkel, S. See Rosenblum, S. F., 67
Fujimoto, K.
—; Minato, M.; Miyamoto, S.; Kaneko, T.; Kikuchi, H.; Sakai, K.; Okada, M.; Ikada, Y.: Porous Polyurethane Tubes as Vascular Graft, 347

Gatti, A. M. See Cigada, A., 39
Gelman, A. See Kossovsky, N., 281
Goodman, S. B.
—; Davidson, J. A.; Fornasier, V. L.; Mishra, A. K.: Histological Response to Cylinders of a Low Modulus Titanium Alloy (Ti-13Nb-13Zr) and a Wear Resistant Zirconium Alloy (Zr-2.5Nb) Implanted in the Rabbit Tibia, 331
Goto, T. See Takatsuka, K., 317
Gould, J. A.
—; Liebler, B.; Baier, R.; Benson, J.; Boretos, J.; Callahan, T.; Canty, E.; Compton, R.; Marlowe, D.; O'Holla, R.; Page, B.; Paulson, J.; Swanson, C.: Biomaterials Availability: Development of a Characterization Strategy for Interchanging Silicone Polymers in Implantable Medical Devices, 355
Grabowski, J. J. See Duda, G. N., 341
Gumargalieva, K. Z. See Horák, D., 253
Guttmann, D.
—; Schmalzried, T. P.; Jasty, M.; Harris, W. H.: Light Microscopic Identification of Submicron Polyethylene Wear Debris, 303

Harris, W. H. See Schmalzried, T. P., 119
—; See Guttmann, D., 303
—; See Schmalzried, T. P., 363
Hata, H. See Tsuchiya, T., 153
Heller, J. See Andriano, K. P., 1
Horák, D.
—; Švec, F.; Adamyan, A. A.; Titova, M. I.; Dan, V. N.; Trostenyuk, N. V.; Voronkova, O. S.; Gumargalieva, K. Z.: Poly(2-Hydroxyethyl Methacrylate) Particles for Preoperative Endovascular Occlusion of Extensive Angiodysplasias, 253
Hsu, A. See Chu, C. C., 169

Ikada, Y. See Tomita, N., 61
—; See Fujimoto, K., 347
Ikarashi, Y. See Tsuchiya, T., 153
Ikeuchi, K. See Tomita, N., 61

Jansen, J. A.
—; van der Waerden, J. P. C.M.; Wolke, J. G. C.: Histological and Histomorphometrical Evaluation of the Bone Reaction to Three Different Titanium Alloy and Hydroxyapatite Coated Implants, 213
Jasty, M. See Schmalzried, T. P., 119
Clinical Reviews: Particulate Debris and Failure of Total Hip Replacements, 273
—; See Guttmann, D., 303
—; See Schmalzried, T. P., 363
Jebweb, M. R.
—; Clerc, C. O.: A Study of the Geometrical and Mechanical Properties of a Self-Expanding Metallic Stent—Theory and Experiment, 77

Kaneko, T. See Fujimoto, K., 347
Kawanabe, K.
—; Tamura, J.; Yamamuro, T.; Nakamura, T.; Kokubo, T.; Yoshihara, S.: A New Bioactive Bone Cement Consisting of BIS-GMA Resin and Bioactive Glass Powder, 135
Kikuchi, H. See Fujimoto, K., 347
Kitsugi, T.
—; Kokubo, T.; Yamamuro, T.; Nakamura, T.: Letter to the Editor, 113
—; Yamamuro, T.; Kokubo, T.; Nakamura, T.: Letter to the Editor, 277
—; See Takatsuka, K., 317
Kokubo, T. See Nishimura, N., 29
—; See Kitsugi, T., 113
—; See Kawanabe, K., 135
—; See Li, P., 221
—; See Kitsugi, T., 277
Kossovsky, N.
—; Zeidler, M.; Chun, G.; Papasian, N.; Nguyen, A.; Rajguru, S.; Stassi, J.; Gelman, A.; Sponsler, E.: Surface Dependent Antigens Identified by High Binding Avidity of Serum Antibodies in a Subpopulation of Patients with Breast Prostheses, 281

Labarre, D.
—; Montdargent, B.; Carreno, M.-P.; Maillet, F.: Strategy for *in vitro* Evaluation of the Interactions between Biomaterials and Complement System, 231
Lefebvre, F. See Bordenave, L., 309
Lewis, G.
—; Daigle, K.: Electrochemical Behavior of Ti-6Al-4V Alloy in Static Biosimulating Solutions, 47
Lewis, T. W. See Tountas, C. P., 261
Li, P.
—; Ohtsuki, C.; Kokubo, T.; Nakanishi, K.; Soga, N.; Nakamura, T.; Yamamuro, T.: Effects of Ions in Aqueous Media on Hydroxyapatite Induction by Silica Gel and Its Relevance to Bioactivity of Bioactive Glasses and Glass-Ceramics, 221
Liebler, B. See Gould, J. A., 355
Litsky, A. S.
Clinical Reviews: Bioabsorbable Implants for Orthopaedic Fracture Fixation, 109
Loening, S. A. See Ferguson, S. D., 55

Maillet, F. See Labarre, D., 231
Maliniak, M. M.
—; Szivek, J. A.; DeYoung, D. W.; Emmanual, J.: Hydroxyapatite-Coated Strain Gauges for Long-Term *In Vivo* Bone Strain Measurements, 143
Marlowe, D. See Gould, J. A., 355
McClung, W. L. See Pavlovich, L. J., 157
Mendenhall, H. V. See Tountas, C. P., 261
Milam, J. T. See Towler, M. A., 87
Minato, M. See Fujimoto, K., 347
Mishra, A. K. See Goodman, S. B., 331
Miyamoto, S. See Fujimoto, K., 347
Montdargent, B. See Labarre, D., 231
Morgan, R. F. See Towler, M. A., 87
Morihara, T. See Tomita, N., 61

Nakamura, A. See Tsuchiya, T., 153
Nakamura, T. See Nishimura, N., 29
—; See Kitsugi, T., 113
—; See Kawanabe, K., 135
—; See Li, P., 221
—; See Kitsugi, T., 277
—; See Takatsuka, K., 317
Nakanishi, T. See Li, P., 221
Nguyen, A. See Kossovsky, N., 281
Nishimura, N.
—; Taguchi, Y.; Yamamuro, T.; Nakamura, T.; Kokubo, T.; Yoshihara, S.: A Study of the Bioactive Bone Cement–Bone Interface: Quantitative and Histological Evaluation, 29

O'Holla, R. See Gould, J. A., 355
Ohtsuki, C. See Li, P., 221
Okada, M. See Fujimoto, K., 347

Pachence, J. M.
The Editor's Corner: Healthcare Reform Legislation—We Can Run, But We Can't Hide, 359
Page, B. See Gould, J. A., 355
Papasian, N. See Kossovsky, N., 281
Park, J. B. See Ferguson, S. D., 55
Paulson, J. See Gould, J. A., 355
Paulus, J. A. See Ferguson, S. D., 55
Pavlovich, L. J. See Towler, M. A., 87
—; McClung, W. L.; Thacker, J. G.; Edlich, R. F.; Rodeheaver, G. T.: A Synthetic Membrane for Testing Needle Penetration, 157
Pizzoferrato, A. See Arciola, C. R., 249
Powers, D. L. See Tramaglini, D., 183
Pratt, L. See Chu, C. C., 169
Pyrek, J. D. See Tountas, C. P., 261

Rajguru, S. See Kossovsky, N., 281
Rawls, H. R. See Benton, J. B., 97
Ricci, J. R. See Rosenblum, S. F., 67
Rodeheaver, G. T. See Pavlovich, L. J., 157
—; See Batra, E. K., 241
Roos, A. See Cigada, A., 39
Rosenberg, A. See Schmalzried, T. P., 119
—; See Schmalzried, T. P., 363
Rosenblum, S. F.
—; Frenkel, S.; Ricci, J. R.; Alexander, H.: Diffusion of Fibroblast Growth Factor from a Plaster of Paris Carrier, 67
Roylance, D.
Assessment of Olefin-Based IUD Tail Strings, 289

Sakai, K. See Fujimoto, K., 347
Sasaki, T. See Tsuchiya, T., 153
Schmalzried, T. P.
—; Jasty, M.; Rosenberg, A.; Harris, W. H.: Histologic Identification of Polyethylene Wear Debris Using Oil Red O Stain, 119
—; See Guttmann, D., 303
—; Jasty, M.; Rosenberg, A.; Harris, W. H.: Histologic Identification of Polyethylene Wear Debris Using Oil Red O Stain, 119; Errata, 363
Schmidt, J. A.
—; von Recum, A. F.: On the Use of Primary Reference Grade Polydimethylsiloxane, 73
Shibuya, T. See Takatsuka, K., 317
Smutz, W. P. See Andriano, K. P., 1
Soga, N. See Li, P., 221
Sponsler, E. See Kossovsky, N., 281
Stassi, J. See Kossovsky, N., 281
Stone, H. E. See Tountas, C. P., 261

Suganuma, J.
—; Alexander, H.: Biological Response of Intramedullary Bone to Poly-L-Lactic Acid, 13
Švec, F. See Horák, D., 253
Swanson, C. See Gould, J. A., 355
Szivek, J. A. See Maliniak, M. M., 143
—; Thomas. M.; Benjamin, J. B.: Technical Note: Characterization of a Synthetic Foam as a Model for Human Cancellous Bone, 269

Taguchi, Y. See Nishimura, N., 29
Takahashi, M. See Tsuchiya, T., 153
Takatsuka, K.
—; Yamamuro, T.; Kitsugi, T.; Nakamura, T.; Shibuya, T.; Goto, T.: A New Bioactive Glass–Ceramic as a Coating Material on Titanium Alloy, 317
Tamai, S. See Tomita, N., 61
Tamura, J. See Kawanabe, K., 135
Tanaka, N. See Tsuchiya, T., 153
Tarabusi, C. See Arciola, C. R., 249
Taswell, H. F. See Duda, G. N., 341
Thacker, J. G. See Pavlovich, L. J., 157
—; See Batra, E. K., 241
Thomas, M. See Szivek, J. A., 269
Titova, M. I. See Horák, D., 253
Tomita, N.
—; Tamai, S.; Morihara, T.; Ikeuchi, K.; Ikada, Y.: Handling Characteristics of Braided Suture Materials for Tight Tying, 61
Tountas, C. P.
—; Bergman, R. A.; Lewis, T. W.; Stone, H. E.; Pyrek, J. D.; Mendenhall, H. V.: A Comparison of Peripheral Nerve Repair Using an Absorbable Tubulization Device and Conventional Suture in Primates, 261
Towler, M. A.
—; Tribble, C. G.; Pavlovich, L. J.; Milam, J. T.; Morgan, R. F.; Edlich, R. F.: Biomechanical Performance of New Vascular Sutures and Needles for Use in Polytetrafluoroethylene Grafts, 87
—; See Batra, E. K., 241
Toyoda, K. See Tsuchiya, T., 153
Tramaglini, D.
—; Powers, D. L.; Black, J.: The Influence of Flange Compliance and Mechanical Loading on the Tissue Response to Percutaneous Devices, 183
Tribble, C. G. See Towler, M. A., 87
Trostenyuk, N. V. See Horák, D., 253
Trozzo, L. P. See Bendel, L. P., 161
Tsuchiya, T.
—; Ikarashi, Y.; Hata, H.; Toyoda, K.; Takahasi, M.; Uchima, T.; Tanaka, N.; Sasaki, T.; Nakamura, A.: Comparative Studies of the Toxicity of Standard Reference Materials in Various Cytotoxicity Tests and *In Vivo* Implantation Tests, 153
Tucker, R. D. See Ferguson, S. D., 55

Uchima, T. See Tsuchiya, T., 153

van der Waerden, J. P. C. M. See Jansen, J. A., 213
Vieth, R. F. See Coughlin, R. W., 363
von Recum, A. F. See Schmidt, J. A., 73
Voronkova, O. S. See Horák, D., 253

Wilson, J.
World Biomaterials Congresses 1980–1992, 103
Wolfe, L.
Response to Letter to the Editor, 277
Wolke, J. G. C. See Jansen, J. A., 213
Wyatt, W. B. See Andriano, K. P., 1

Yamamuro, T. See Nishimura, N., 29
—; See Kitsugi, T., 113
—; See Kawanabe, K., 135
—; See Li, P., 221
—; See Kitsugi, T., 277
—; See Takatsuka, K., 317
Yoshihara, S. See Nishimura, N., 29
—; See Kawanabe, K., 135

Zaffe, D. See Cigada, A., 39
Zeidler, M. See Kossovsky, N., 281
Zhang, L. See Chu, C. C., 169
Zimmer, C. A. See Batra, E. K., 241
Zimmerman, B. F. See Benton, J. B., 97
Zimmerman, K. L. See Benton, J. B., 97
Zimmerman, M. C. See DoVan, T., 127